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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,978	06/19/2005	Michael Bakhmutsky	US 020568	8337

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EXAMINER

HOGGARD, PATRICE DENEEN

ART UNIT	PAPER NUMBER
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2628

MAIL DATE	DELIVERY MODE
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08/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,978	Applicant(s) BAKHMUTSKY, MICHAEL	
	Examiner Patrice Hoggard	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on June 19, 2005 is being considered by the examiner.

Drawings

2. The drawings are objected to because the figure 1 is not labeled properly. Each of the numbered boxes should also have a name with the number label. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 5 is objected to because of the following informalities:

In claim 5, the citation "an absolute an absolute", respectively should be changed to "an absolute".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 4, 5, 9, 10 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Eglit (US Patent 5,734,362).

As to claim 1, Eglit teaches a method of correcting a video signal, the method comprising:

providing a plurality of correction data(e.g. the brightness value can be changed to provide a different brightness response depending on different types of display used.)(Col. 2, lines 42-44);

comparing the correction data to safety margin data(e.g. the clamping of the adjusted pixel value assures that the lowest and highest pixel values will be within the proper range.)(Col. 2, lines 39-54); and

determining a level of correction based on the comparing, wherein correction of video non-uniformity is provided(e.g. a brightness adjuster that corrects the brightness response of an LCD display and thereby improves the contrast of the LCD display.)(Col.

2, lines 7-9), but clipping of the video signal is substantially prevented(Col. 5, lines 40-67 and Col. 6, lines 1-50).

As to claim 9, Eglit teaches an apparatus for correcting a video signal comprising:

a correction device(e.g. brightness adjuster, 34), which compares correction data with safety margin data to determine a level of video correction based in the comparison, wherein video correction is provided, but video signal clipping is substantially prevented(Col. 5, lines 40-67 and Col. 6, lines 1-50).

As to claim 4, Eglit discloses a method as recited in claim 1, wherein said correction of video comprises, based on said comparing, applying a particular level of video correction(e.g. providing an adjusted brightness value if the value is less than the max value (255) or providing the max value if the adjusted value is greater than the max value).

As to claim 5 Eglit discloses a method as recited in claim 4, wherein said particular level of video correction is less than or equal to an absolute an absolute minimum video modification safety margin value(Col. 5, 54-65).

As to claim 10, Eglit discloses an apparatus as recited in claim 9, further comprising a safety margin device(e.g. clamping circuitry, 51), which stores said safety margin data, and a correction coefficient device, which stores said correction data(e.g. although the reference does not actually state that the safety margin data is stored, it is inherent that the correction data has to be stored in order for the data to be compared for correction.)(Col. 5, lines 40-67 and Col. 6, lines 1-50).

As to claim 13, Eglit discloses an apparatus as recited in claim 1, wherein said correction device applies said level of video correction to an LCD(Col. 5, lines 9-12), and said level is less than or equal to an absolute minimum video modification safety margin(Col. 5, lines 40-67 and Col. 6, lines 1-50).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eglit (US Patent 6,954,193).

As to claim 14, Eglit does not disclose an apparatus as recited in claim 10, wherein said stored safety margin data is determined by evaluating a limited number of pixels of an LCD. However, the margin of 0-255 is determined by a standard display. It would have been obvious to have different margins or gray scale levels based on a limited number of pixels (e.g. resolutions of the displays).

8. Claims 2-3, 6-8, 11-12, and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eglit (US Patent 5,734,362). In view of Andrade et al. (US Patent 6,954,193).

As to claim 2, Eglit teaches a method of correcting a video signal. Eglit does not teach a method of correcting a video signal using a two-dimensional interpolation technique. Andrade et al. discloses a method wherein the providing of the correction

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data comprises interpolating the correction data using a two-dimensional interpolation technique (e.g. four correction values being used for bilinear interpolation (f00, f01, f010 and f11) indicating a 2D interpolation technique)(Col. 11, lines 32-35). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the two-dimensional interpolation technique of Andrade et al. with the method of correcting a video signal of Eglit in order to arrive at the corrected values for one or more non-reference pixel level values associated with one or more non-reference pixel locations(Col. 5, lines 54-57).

As to claim 3, Eglit as modified by Andrade et al. discloses a method wherein the method includes providing said safety margin data(e.g. correction matrix) by interpolating stored safety margin data(e.g. although the reference does not actually state that the safety margin data is stored, it is obvious that the correction matrix has to be stored in order for the data in the matrix to be compared for correction.)(Col. 11, lines 32-35).

As to claims 6 and 7, Eglit as modified by Andrade would provide a method comprising evaluating a limited number of pixels of an LCD to determine said correction data for a particular interpolation block(Col. 5, lines 55-67 and Col. 6, lines 1-6 of Andrade).

As to claim 8, Andrade et al. discloses a method wherein said interpolating is a two-dimensional interpolation technique(e.g. four correction values being used for bilinear interpolation (f00, f01, f010 and f11) indicating a two dimensional interpolation technique)(Col. 11, lines 32-35).

As to claim 11, Andrade et al. discloses an apparatus wherein said safety margin device(e.g. correction matrix) and said correction coefficient device(e.g. memory, 470) are each input to said correction device(e.g. correction module, 450), which provides interpolated correction data and interpolated margin safety data based on input from said correction data device and said margin safety device, respectively(Col. 7, lines 35-38, Col. 10, lines 14-22).

As to claim 12, Andrade et al. discloses an apparatus as recited in claim 11, wherein said comparing is performed using said interpolated correction data and interpolated margin safety data(Col. 11, lines 32-35).

As to claim 15, Andrade et al discloses an apparatus wherein said interpolated correction data is determined using a two-dimensional interpolation technique(e.g. four correction values being used for bilinear interpolation (f00, f01, f010 and f11) indicating a two dimensional interpolation technique)(Col. 11, lines 32-35).

As to claim 16, Andrade et al discloses an apparatus wherein said two-dimensional interpolation technique is a bi-linear interpolation technique(e.g. four correction values being used for bilinear interpolation (f00, f01, f010 and f11) indicating a two dimensional interpolation technique)(Col. 11, lines 32-35).

As to claim 17, Andrade et al. discloses an apparatus wherein said interpolated margin safety data determined using a two-dimensional interpolation technique(e.g. four correction values being used for bilinear interpolation (f00, f01, f010 and f11) indicating a two dimensional interpolation technique)(Col. 11, lines 32-35).

As to claim 18, Andrade et al. discloses an apparatus wherein said two-dimensional interpolation technique is a bi-linear interpolation technique(e.g. four correction values being used for bilinear interpolation (f00, f01, f010 and f11) indicating a two dimensional interpolation technique)(Col. 11, lines 32-35).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sivers et al. (US Patent 5,748,768) is cited to teach a method and apparatus for correcting distortion in an imaging system.

Oshino (US Patent 6,289,133) is cited to teach an image processing method and apparatus.

Johnson et al. (US Patent 6,310,650) is cited to teach a method and apparatus for calibrating a tiled display.

Serita (US Patent 6,603,452) is cited to teach a color shading correction device and luminance shading correction device.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrice Hoggard whose telephone number is 571-270-1716. The examiner can normally be reached on Monday through Thursday, 7:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao Wu can be reached on 571-272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PDH

July 31, 2007


XIAO WU
SUPERVISORY PATENT EXAMINER